CITY OF
BAINBRIDGE ISLAND

TRAFFIC OPERATIONS COMMITTEE
WEDNESDAY, DECEMBER 1, 2021
9:00 – 10:00 AM
ZOOM – VIRTUAL WEBINAR

PLEASE CLICK THE LINK BELOW TO JOIN THE WEBINAR:
HTTPS://BAINBRIDGEWA.ZOOM.US/J/92330138510
TELEPHONE: 1-253-215-8782
WEBINAR ID: 923 3013 8510

AGENDA

1. CALL TO ORDER / ROLL CALL / ACCEPT OR MODIFY AGENDA
   9:00 AM

2. UPDATE ON NEIGHBORHOOD TRAFFIC CALMING PROJECTS - 15 MIN.

   A. REVIEW EVALUATION PROCESS
   B. REVIEW PRELIMINARY PRIORITY LOCATIONS FOR IMPLEMENTATION
   C. NEXT STEPS

3. DISCUSS PROGRAMMATIC APPROACH TO SETTING CITY-WIDE SPEED LIMITS – 15 MIN.

   A. REVIEW SPEED AND SPEED LIMIT DATA
   B. DISCUSS PROS AND CONS OF PROGRAMMATIC APPROACH
   C. NEXT STEPS

4. DISCUSS PROCESS FOR STREET LIGHTING REQUESTS – 10 MIN.

5. NEXT MEETING AGENDA PLANNING – 5 MIN.

6. ADJOURNMENT
   10:00 AM

2019 Traffic Study
85th % Speed and Average Daily Trips

New Locations 8/25/21

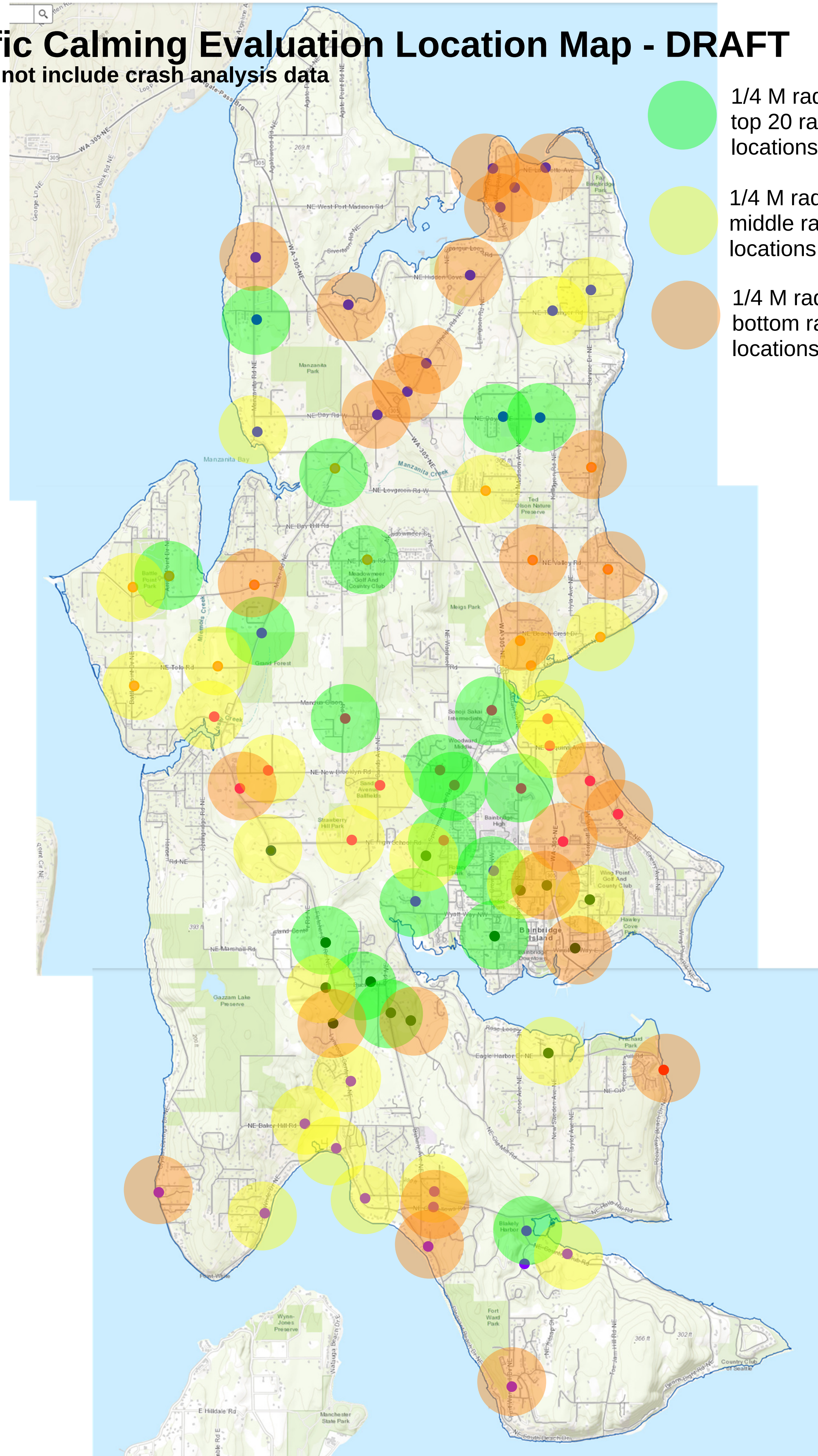
Proposed Bicycle Collection Points

Collection Point
85TH % SPEED
AVERAGE DAILY TRIPS

Date Exported: 1/10/2020 12:03 PM
Default Folder: D:\ArcGIS PRO Project\Road Projects

Traffic Calming Evaluation Location Map - DRAFT

**** does not include crash analysis data**



1/4 M radius @ top 20 ranked locations

1/4 M radius @ middle ranked locations

1/4 M radius @ bottom ranked locations

Traffic Calming Project Prioritization Worksheet - Madison Ave South of New Brooklyn - EXAMPLE

The City of Bainbridge Island is working to implement project ideas from the community that will improve conditions for people walking, biking or rolling in neighborhoods. It is important that projects are prioritized to determine funding and scheduling of potential countermeasures and improvements. Projects will be considered for analysis and design of possible countermeasures or improvements based on the following:

Category	Criteria	Project	Possible Score
Safety			
Traffic Speed	Greater than 30% of vehicles 5 mph or more over posted speed limit OR 85th percentile speeds 10 or more mph over posted speed limi		8
	Greater than 25% of vehicles 5 mph or more over posted speed limit OR 85th percentile speed 7 to 10 mph over posted speed limit	6	6
	Greater than 15% of vehicles 5 mph or more over posted speed limit OR 85th percentile speed 5 to 7 mph over posted speed limit		4
	Greater than 10% of vehicles 5 mph or more over posted speed limit OR 85th percentile speed 3 to 5 mph over posted speed limit		2
	85th percentile speed less than 3 mph over posted speed limit		0
5-Year Crash History*^ (in the project corridor)	4 or more	not yet completed	6
	2 to 3		2
	1 crash		1
	0 crashes		0
	**** For each crash involving bicyclists or pedestrians, add 2 points; for each serious injury or fatal crash, add 6 points.***		
	^ Crashes should be speed-related or intersection-related, as cited in official crash reports		
Roadway Classification & Volumes	Residential with volumes greater than 80% of maximums identified in Table 3-4, ITWF	6	6
	Collector or Secondary Arterial with volumes greater than 80% of maximums identified in Table 3-4, ITWF		4
	Roadway with volumes between 60 and 80% of maximums identified in Table 3-4, ITWF		2
	Roadway with volumes less than 60% of maximums identified in Table 3-4, ITWF		0
	Principal arterials are not recommended for physical traffic calming		
	Total Safety Points	12 / 20	
Roadway Characteristics			
Bike and Pedestrian Facilities[$]	Roadway has no bike lane, sidewalk or paved shoulders		5
	Roadway has no bike lane or sidewalk AND narrow (less than 2 feet wide) paved shoulders		4
	Roadway has no bike lane or sidewalk but has (greater than or equal to 2 feet wide) paved shoulders		3
	Roadway has sidewalk on at least one side, but no separated bike lanes or shared use path		2
	Roadway has bike lanes and/or sidewalks and/or shared use path on at least one side	1	1
	Roadway has bike lanes and/or sidewalks and/or shared use path on both sides		0
	$ For each marked, uncontrolled crosswalk in the segment, add 2 points. For each signal-controlled or RRFB crosswalk, add 1 point		
Horizontal Geometry	Roadway segment is generally straight (at least 1/2 mile)	4	4
	Roadway segment has 1 or more curves (<45 degree), no posted advisory speeds		2
	Roadway segment has 2 or more curves (<45-degree) but without posted advisory speeds		1
	Roadway segment has 1 or more tight curves (>45-degree) and/or posted advisory speeds		0
Vertical Geometry	Roadway segment is flat (<5% grade) with no sight distance concerns for at least 1/2 mile		2
	Roadway segment has grade differences, or a consistent grade over 5%, but good sight distance	1	1
	Roadway segment has grade differences, or a consistent grade over 10%, and hills limit sight distance		0
	Total Roadway Characteristics Points	6 / 11	
Community Context			
School Proximity	Location is within a designated school speed zone (posted 20 mph speed limit)	3	3
	Location is within 1/4 mile of a school or designated as a Safe Route to Schoo		1
	Location is not within 1/4 mile of a school and is not designated as a Safe Route to Schoo		0
Park Proximity	Location contains park frontage	3	3
	Location is within 1/4 mile of a park		1
	Location is not within 1/4 mile of a park		0
Emergency/Transit/Freight	Location is not on a primary/routine emergency vehicle route, transit route, or truck route		2
	Location is on one of the following: primary/routine emergency vehicle route, transit route, or truck route		1
	Location is on two or more of the following: primary/routine emergency vehicle route, transit route, or truck route	0	0
Public Support	Roadway segment has been the subject of requests for calming by at least 3 households	2	2
Plan Support	Project meets goals and objectives of the Sustainable Transportation Plan - Tier 1 project	3	3
	Project meets goals and objectives of the Sustainable Transportation Plan - Tier 2 project		2
	Project meets goals and objectives of the Sustainable Transportation Plan - Tier 3 project		1
	Total Community Context Points	11 / 13	

29 / 44

APPROACH TO THE EVALUATION

We understand the City of Bainbridge Island is interested in performing a programmatic evaluation of posted speed limits for all public roadways across the island. ***Transpo Group prepared, at the request of the City's Public Works department, in September 2021 a memorandum titled "Options for Modifying Posted Speed Limits."*** Our approach to assisting the City in performing the required engineering evaluation to recommend systemwide changes to speed limits builds from the information in the September 2021 memorandum. The memo has been attached to this submittal for reference and to demonstrate our background knowledge of the subject.

In the memo we listed a few options the City could consider in modifying speed limits, with one of the options being a city wide programmatic review of speed limits. Based on our knowledge of the City, we have prepared the following approach to completing the evaluation effort.

Task 1. Confirm Potential Strategies

Our understanding is that the City has reviewed posted speed limits on a case-by-case basis in the past. Reviews generally arose from residents or councilmembers requesting a change in the speed limit. This practice has led to some inconsistent speed limits across the island, and requests continue to occur. In fact, the recent call for Traffic Calming Projects last summer resulted in many speed limit modification requests.

At the outset of the project, it would be helpful to have a discussion on the following overarching strategies for the City to consider:

- *Is the City interested in adopting a systemwide 20 MPH speed limit for all local roadways?* We understand that some local roadways have been posted at 20 MPH, while others have not. One approach would be to consider a systemwide change to local roadways. Another option would be to identify criteria to provide clear guidance on when a local roadway should be signed for 25 MPH as compared to 20 MPH.
- *Does the City want to adopt a default 25 or 30 MPH speed limit for all collectors and arterials?* We understand that existing speed limits on collector and arterial roadways range between 25 and 35 MPH. One approach to consider would be to adopt a 25 MPH base speed limit, and then develop guidance on which arterial or collectors are the exception to the base speed limit. Specific criteria would be developed to support the exceptions to the base speed limit.

Task 2. Review Existing Data, Speed Studies, and Public Requests

As part of the recent updates to the Traffic Calming program, the City completed a comprehensive inventory of vehicle speeds and traffic volumes across the island. The information has been mapped via GIS by City staff. Along with the recent speed and volume data, the City has an inventory of its posted speed limit signs. We understand that the information that has been compiled is in GIS format that can be shared with the consultant team. We would review the data and develop thematic and illustrative maps of the roadway system to highlight current speed limits, traffic volumes, and 85th percentile speeds in a way to better understand and compare the different data and provide improved context of the existing conditions.

In addition to the data, we would review the speed limit modification requests submitted by the public. We understand the requests have also been mapped by the City. We would overlay the requests on the previous maps that have been created to identify any correlation between speeds, volumes, and posted speed limits. All of the combined information would be evaluated to identify any inconsistencies or areas in common which could be used as a starting point as we begin our engineering evaluation.

Task 3. Summarize State Law and Best Practice Research

We will summarize research we have performed on other similar studies for agencies to identify and confirm best practices agencies employ when setting or modifying posted speed limits. National and local publications from federal, state, and local agencies, professional organizations, universities, and industry groups will be summarized to identify key information that would be useful in this evaluation. Recent publications that provide guidance on modifying speed limits are:

Institute of Transportation Engineers Setting Speed Limits (https://www.ite.org/technical-resources/topics/speed-management-for-safety/setting-speed-limits/)

Washington State Injury Minimization and Speed Management Policy Elements and Recommendations ,October 2020

National Association of City Transportation Officials (NACTO) City Limits, 2020 (https://nacto.org/safespeeds/)

Draft National Cooperative Highway Research Program (NCHRP) Project 17-76: Guidance for the Setting of Speed Limits (Anticipated Winter 2021).

Task 4. Develop Speed Limit Criteria and Review with the City

Utilizing the maps and data compiled previously, along with the best practice research, we would work with staff to prepare criteria that could be used to make programmatic modifications to the posted speed limits. Separate criteria would be set-up for local roadways, and collectors/arterials, depending on the input we receive from the City on the overarching strategies discussed at the outset of the effort. For example, if the City wanted to move forward with changing the default speed limit for local roadways to 20 MPH, it would not be necessary to develop criteria to distinguish between a 20 and 25 MPH local roadway. Instead, we would develop policy guidance language on why the Council should consider modifying the default speed limit on local roadways.

Building on Transpo's recent effort in developing the City's Traffic Calming program, we would utilize some of the same criteria as a starting point. Some example criteria we would recommend be considered in the speed limit engineering evaluation include:

- Roadway Functional Classification
- Traffic Speed, 85th and 50th Percentile Speeds
- Roadway Volumes
- Crash History and other Safety Considerations
- Adjoining Land Uses
- Roadway Characteristics
    - *Pavement width*
    - *Shoulder type and width*
    - *Horizontal geometry*
    - *Vertical geometry*
    - *Density of intersections and driveways*

We understand that the City may not have all the roadway characteristics data in GIS format. Undertaking the data collection for the entire roadway system would not be possible given the resources available for the consultant effort. As an alternative approach, we would use the analysis conducted in the previous tasks to identify some representative roadway segments in which to inventory to establish a starting point for calibrating the criteria for use on the Bainbridge Island roadway system.

A few options and examples would be prepared to illustrate the types of criteria and how they would be applied to a few representative samples. The information and results would be reviewed with City staff to obtain feedback and guidance on the criteria, before applying the criteria more broadly to the entire system. We would utilize maps and spreadsheets to illustrate the options for consideration.

Task 5. Apply Citywide Speed Limit Criteria

Transpo will adjust the draft evaluation criteria and approach for evaluating and confirming speed limits on a programmatic level based on the City's review and feedback. The next step will be to apply the draft criteria at a citywide level. Updated maps illustrating the changes in posted speeds will be prepared for review by City staff. Adjustments to the criteria would be considered based on specific issues that could arise at the programmatic level. The information would be reviewed in detail with City staff to confirm a final set of criteria and list of speed limit modifications.

Task 6. Summarize Final Recommendations

The efforts of the prior work elements will be consolidated into a document and presentation file, with clear recommendations and next steps. The City will review the document to ensure it reflects the synopsis of the work completed, and incorporates graphics, maps, and tables to present information in a compelling and straightforward manner. Transpo staff would be available to present the recommendations to the City Council.

CITY OF
BAINBRIDGE ISLAND

PUBLIC WORKS DEPARTMENT

MEMORANDUM

DATE: NOVEMBER 29, 2021

TO: CHRIS WIERZBICKI, P.E., PUBLIC WORKS DIR.

FROM: PETER CORELIS, P.E., CITY ENGINEER

SUBJECT: STREET LIGHTING REQUEST

Brief:

A citizen has requested the installation of a streetlight at the corner of Ferncliff Avenue NE and NE Brookcliff Lane citing mail theft, car prowls, and safety concerns for pedestrian crossings.

Analysis:

Current City of Bainbridge Island Municipal Code (BIMC) governing street light installation:

12.38.070 Street lights.

Street lights, at city expense, may be installed in the ROW within the urban area only, as approved by the director of public works, and in no case closer than 300 feet apart. No street lights will be allowed in the right-of-way in rural areas, unless approved by the director of public works, and at other than the city's expense. (Ord. 94-11 § 7, 1994)

"*Urban Area*" is not defined in BIMC 18.36 zoning definitions. The only reference to urban area is found in the zoning district definitions which says that properties zoned R-4.3 or denser are considered urban, and properties zoned R-3.5 or less dense are considered suburban. There are no "*rural"* areas within the City-limits as set forth by the State of Washington Growth Management Act (GMA) being that we are an incorporated municipality. Therefore, it has been the City's practice to consider areas described as rural within the City-limits as suburban. This interpretation has guided the engineering department in the application of urban/suburban road standards for construction and development.

The existing corridor along Ferncliff Avenue is considered suburban area (see attached map). Per ordinance streetlights are not permissible without the public works director's approval and at no cost to the City for installation.

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Key Things to Consider:

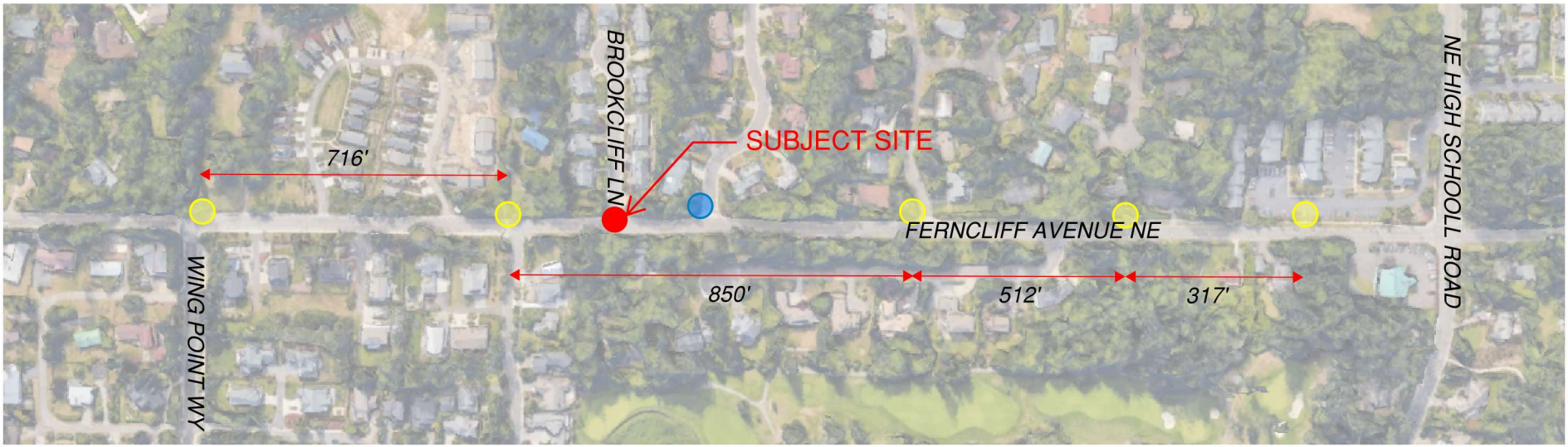
- There is an existing crosswalk on Brookcliff at the intersection with Ferncliff Avenue. Traffic data as far back as June of 2019 shows there are no incident reports of collisions or pedestrian injuries at this location.

- The existing streetlight spacing along Ferncliff varies between approximately 300'-850'. An installation at the Brookcliff intersection would place it closer to two adjacent streetlights than the 300' minimum spacing distance

- The installation where approved should not be at the expense of the City.

- Mail theft deterrence may be accomplished by other means (i.e. locking mailboxes).

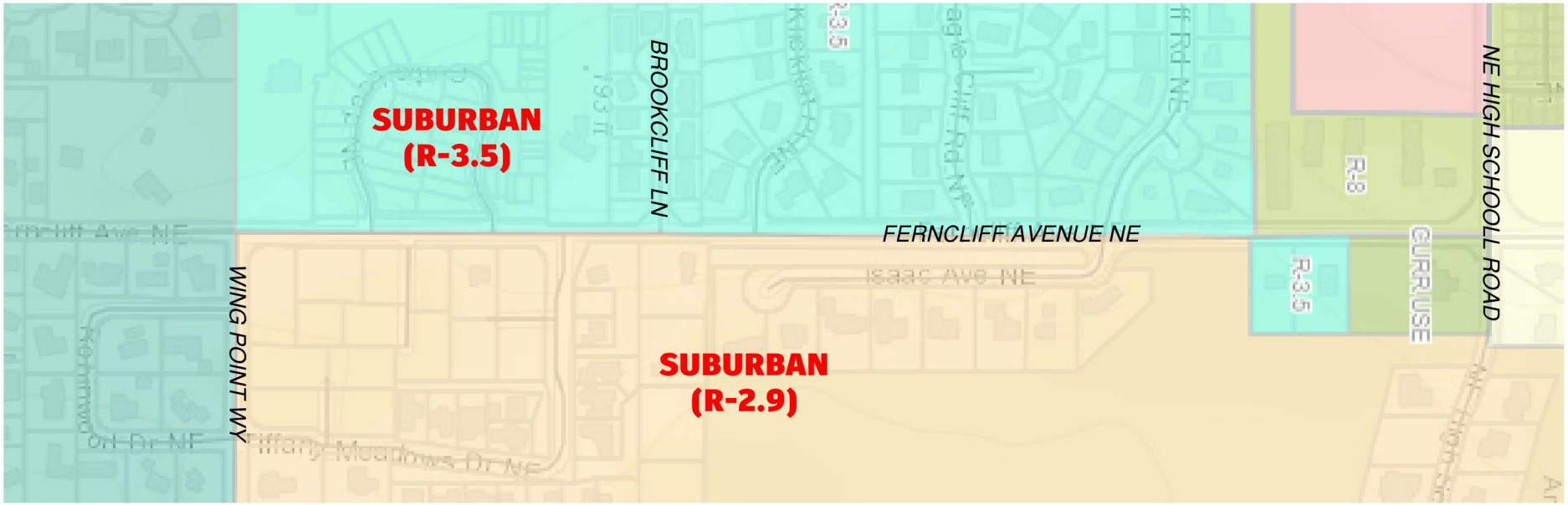
EXISTING STREET LIGHT MAP



EXISTING STREETLIGHTS (POLE MOUNTED)

EXISTING STREETLIGHTS (SIDE STREET ORNAMENTAL)

ZONING DISTRICT MAP



Chris Wierzbicki

From: Chris Wierzbicki
Sent: Friday, September 3, 2021 5:20 PM
To: tynerassociates@aol.com; Joe Clark; Peter Corelis; Rasham Nassar
Cc: PWAdmin
Subject: RE: Accidents on Lynwood Center Road abound

Hi Ms. Tyner,

Thank you for writing in with your concerns about the recent accidents on Lynwood Center Road. I think you heard from the City Manager that this item will be taken up at the next Traffic Operations Committee meeting, which is scheduled for mid-November, but I also wanted to pass along some additional thoughts about this area.

On July 16th, the City completed a 2-month open call-for traffic calming and speed limit reduction projects, and we are in the process of determining a process for evaluating and implementing requests - there were over 300. I know that Lynwood Center Road is on the list for locations that the community recommended be investigated. The City Council will first discuss this item at their September 21st meeting, with further discussions regarding prioritization and implementation of traffic calming improvements planned later in the year. If you would like to be updated on the process, please sign up for email notifications on the City's project page here. Also feel free to check in with me later in the year for an update.

Additionally, I looked at the data available about this location, and discovered the following:

- The most recent speed study we have for this approximate location is that the 85th percentile speed (or the speed that 85% of drivers are driving) is 39.3. Engineering guidance tells us that speed limits should be set at within 5 mph of the 85th percentile speed, which means that 35 is appropriate. That doesn't mean we can't look at changing it – it's merely a point of reference. However, it does mean that we'll likely have better results from a traffic calming approach than a speed limit change – or perhaps both.

- Of the crashes that have occurred in this general area over the last 10 years, there have been only two in the vicinity of the two recent accidents: one at the intersection with Opal Ridge, and one several hundred feet to the northwest. That's a fairly low crash rate – but again, it doesn't mean we can't consider some revisions.

- Lastly, we know from the police report that the recent non-intersection crash was the result of inattentive driving, which is unlikely to be solved by a speed limit or traffic calming revision. We're still sorting through the details of what happened at the recent intersection crash, but the available information does not point towards speeding being a factor.

As I mentioned, we will be taking this roadway into consideration as we evaluate speed limit and traffic calming improvements, and I look forward to your engagement in that process.

Please let me know if I can answer any further questions.

Thanks,
Chris

CITY OF BAINBRIDGE ISLAND
Christopher Wierzbicki, P.E.
Director of Public Works
www.bainbridgewa.gov
206.780.3718 (office/remote)

From: PWAdmin <PWAdmin@bainbridgewa.gov>
Sent: Wednesday, September 1, 2021 3:40 PM
To: Chris Wierzbicki <cwierzbicki@bainbridgewa.gov>
Subject: FW: Accidents on Lynwood Center Road abound

Nicole Retana
Public Works Administrative Specialist III
Office: 206.780.2016 | Direct: 206.780.3732 | Cell: 206.947.0700
nretana@bainbridgewa.gov

CITY OF BAINBRIDGE ISLAND

From: Wendy Tyner <tynerassociates@aol.com>
Sent: Wednesday, September 1, 2021 12:12 PM
To: Joe Clark <jclark@bainbridgewa.gov>; PWAdmin <PWAdmin@bainbridgewa.gov>; Peter Corelis <pcorelis@bainbridgewa.gov>; Rasham Nassar <rnassar@bainbridgewa.gov>
Cc: aarongedwards@mac.com
Subject: Accidents on Lynwood Center Road abound

Joe and Peter, the accident rate on our residential street, Lynwood Center Road, has increased significantly over the 30 years I've lived at 5906 Lynwood Center Road. I've made a public records request for the past 10 years that will show the number of incidents. That just puts a slight dent into the situation, so to speak. We know there are many accidents that aren't ever reported. Your records will show the number of serious accidents that are recorded.

With 4 very serious accidents that we know about in the recent weeks, my husband, Tom Tyner and I are very concerned about our safety. Yesterday's roll over also hit a mailbox, midday, when we pick up our mail. That highly concerns me. This is one of the most active streets on island as it is a thoroughfare for trucks and cars, **PLUS bikes, kids, walkers, runners and dog-walkers.**

Please look into the possibility of bike lanes and a lower speed limit. COBI has $70mm to spend. Community safety should rank #1. Bike lanes will offer a buffer and a lower speed limit will be similar to other residential streets. There are driveways along the entire road, with very limited site lines. We live on one of the curves. It's very dangerous pulling in and out of our driveway.

After losing one golden retriever to Lynwood Center's fast drivers, please reduce the speed limit soon to prevent any other casualties. Thank you. Please reply with your recommendations.

Wendy

Wendy Tyner
Director of Philanthropy/Publicity
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2020 IBMA Mentor of the Year Award, Youth Education Program
2018 CMA Recipient- Teacher Excellence, Music Education Director
2015 GRAMMY Finalist- Music Education Director
2011 IBMA Nominee, Youth Education Program
2005 IBMA Award, Event of the Year